



City of Tukwila

2015 Update

Stormwater Management Program Plan

(SWMP) Plan

Prepared By

City of Tukwila
Public Works Department

City of Tukwila

Stormwater Management Program Plan

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INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal Clean Water Act. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES delegated permit authority is the Washington State Department of Ecology (DOE).

This document was prepared by the City of Tukwila to meet the requirements for a Stormwater Management Program (SWMP) Plan as required by the NPDES Phase II Permit. The SWMP Plan was developed to reduce pollutant discharges from the City's Municipal Separate Storm Sewer System (MS4)

The Permit allows discharge of stormwater runoff from municipal drainage systems into the state's water bodies (i.e., streams, rivers, lakes, wetlands, etc.) as long as municipalities implement programs to protect water quality by reducing the discharge of "non-point source" pollutants to the "maximum extent practicable" (MEP). In addition, the City must meet "all known and reasonable treatment" (AKART) through application of Permit specified "best management practices" (BMPs). The practices specified in the Permit are collectively referred to as the SWMP Plan and grouped under the following program components:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations
- Coordination
- Compliance with Total Maximum Daily Load Requirements
- Monitoring and Assessment

The Permit requires that the City:

- Report annually (by March 31 of each year) on the SWMP Plan implementation from the prior year.
- Submit annually (by March 31 of each year) a SWMP Plan that describes proposed surface water management program activities for the coming year.
- Develop a SWMP Plan that includes an ongoing program for gathering, tracking, maintaining, and using information to evaluate its SWMP Plan development, implementation and permit compliance and to set priorities.
- Coordinate with other permittees on stormwater-related policies, programs, and projects within adjoining or shared areas.
- Coordinate with City departments to eliminate barriers to compliance with the terms of the permit. Include a description of coordination in the Annual Report no later than March 31, 2015.

NPDES PHASE II PROGRAM COMPONENTS

Tukwila is defined as a Phase II community by DOE and, therefore, mandated to comply with the requirements of the Phase II National Pollution Discharge Elimination System (NPDES) Stormwater Permit. Phase II communities are those that:

- Own and operate a storm drain system
- Discharge to surface waters of the state
- Are located in urbanized areas
- Have a population of more than 1,000

Municipalities with a population of over 100,000 (as of the 2010 census) have been designated as Phase I communities and must comply with DOE's Phase I NPDES Municipal Stormwater Permit. Tukwila's population is below the 100,000 threshold and must comply with the Phase II Municipal Stormwater Permit. Approximately 100 other municipalities in Washington must now comply with the Phase II Permit, as operators of small "municipal separate storm sewer systems" (MS4). Ecology's Phase II Permit is available on Ecology's Web site at:

<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wpphiipermi.html>

Tukwila completed requirements of its initially issued NPDES Phase II Stormwater Permit which expired July 31, 2013. Tukwila applied to the Department of Ecology and was issued a new five-year term NPDES Phase II Stormwater Permit on August 1, 2012 with an effective date of August 1, 2013 and an expiration date of July 31, 2018. The Permit was then modified and reissued December 17, 2014 with an effective date of January 16, 2014 to further control the discharge of pollutants to protect surface water and ground water quality in Washington State.

As stated, the major program components listed in the Permit are as follows:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations
- Coordination
- Total Maximum Daily Load Requirements
- Monitoring and Assessment

The following sections describe requirements of each program component, the City's current activities, and what the City's planned activities are to meet the requirements. In general, the City of Tukwila is currently performing all previously required NPDES Phase II Permit activities and has programs in place to address the updated Permit requirements.

1. PUBLIC EDUCATION AND OUTREACH

1.1 Permit Requirements

The Permit (Section S5.C.1.) requires the City to:

- Target and implement an educational and outreach program that will build general awareness specific to the general public, businesses, engineers, contractors, developers, development staff and land use planners and other City employees that will help to reduce and eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Implement an outreach program that targets a selected audience with the purpose of improving their understanding and behaviors that impact surface water.
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.
- Measure the understanding and adoption of the targeted behaviors for at least one selected audience and one selected topic.
- Track and maintain records of public education and outreach activities.

1.2 Current Activities

The City of Tukwila has an active public educational and outreach program regarding general impacts of stormwater on surface waters with the following target audiences:

- The general public with an emphasis on school age children in science based classrooms.
- Carpet cleaning, landscaping, automotive/truck, and restaurant businesses.
- Residents/homeowners, apartment managers/owners.
- City development staff, land use planners, maintenance personnel and other City employees.
- The City partners with Forterra, EarthCorps and the Friends of Duwamish Hill Preserve to provide stewardship training and restoration activities in Tukwila's parks and shoreline areas. Typically volunteers gather monthly to do restoration and conservation work in Tukwila directly affecting the water quality, natural habitat and vegetation within the Duwamish/Green watershed. In addition, the City of Tukwila hosts an annual Healthy Earth, Healthy 5k and tree planting event involving over 250 people learning about the Duwamish watershed and how they are a part of the cleanup. The City also works with Duwamish Clean up Coalition, actively participating in the Duwamish Alive! Restoration and community education activities throughout the year on three restoration sites.
- The City expanded its public education and outreach program with access to Tukwila's government Channel 21, which was implemented as a tool to provide updates and various types of information to the public. Our Public Works Department now uses this channel to inform the public of the City's Surface Water Department and completed a staff interview that covered frequently asked questions about stormwater.

- Also new to the City's public education and outreach program is the use of Twitter and Facebook.
- The City has a phone survey program that targets selected audiences that include but not limited to the general public, automotive businesses, restaurants, and property owners/managers. This program is used to help measure the public's understanding of stormwater problems and guide the City's education and outreach program.
- Track and maintain records of the City's public education and outreach activities.

1.3 Planned Activities

The City of Tukwila will conduct the following activities in 2015:

- Continue with the City's educational program that began in 2012 targeting school age children in science based classrooms addressing general impacts of stormwater on surface waters.
- Target and educate carpet cleaning, landscape, automotive/truck and restaurant businesses of the impacts of associated pollutant generating activities.
- Continue training public works personnel including field staff, new employees, and development review and planning department personnel relating to Low Impact Development (LID) principals and LID Best Management Practices (BMPs).
- Continue to conduct phone surveys of a targeted audience of 100. The City will compare year to year survey results to help guide future education and outreach programs.
- Provide an outreach booth giving exposure to the City's SWMP Plan and encouraging input to the Plan. This year the outreach booth will emphasize Low Impact Development and promote the use of rain gardens.
- Continue to support existing stewardship programs currently in place. Continue to offer informal environmental stewardship training when the opportunity presents itself through hands-on restoration activities.
- Continue outreach efforts with the general public by posting NPDES updates on the City's NPDES web page.
- Continue with and update when necessary Tukwila's government TV Channel 21.
- Continue to track and maintain records of the City's public education and outreach activities.
- Summarize this year's Public Education and Outreach" activities in the Annual Report.

2. PUBLIC INVOLEMENT AND PARTICIPATION

2.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to:

- Provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participating in developing rate-structures, SWMP Plan development and implementation or other similar activities.
- Make available and post the current SWMP Plan and annual report for the previous years on the City's website no later than May 31 of each year. Make available to the public all other documents to be submitted to DOE as required by the Permit.

2.2 Current Activities

The City of Tukwila uses the following opportunities for Public Involvement and Participation:

- The public is invited to all City Council, Committee of the Whole, Utilities Committee and workshops where input on NPDES Phase II related topics are encouraged.
- The City maintains the most current SWMP Plan and Annual Report on its NPDES web site. These documents are also made available to the public upon request.
- Provide notices of upcoming workshops, in the Tukwila Reporter, Hazelnut newsletter, and City's NPDES webpage. In addition, notices will be posted at strategic locations such as City Hall, Public Works and Community Development areas.

2.3 Planned Activities

The City of Tukwila will continue with the following Public Involvement and Participation activities for 2015:

- Invite the public to participate in the decision making process involving proposed rate increases, and implementation and update of the annual SWMP Plan through advisory councils, public meetings, and watershed committees.
- Invite the public to all City Council, Committee of the Whole, Utilities Committee and workshops where input on NPDES Phase II related topics are encouraged.
- The City will make available and update its website with current NPDES information including the current SWMP Plan and Annual Report on its website: www.tukwilawa.gov/pubwks/npdes by May 31 of each year.
- Provide NPDES Phase II updates on the City's NPDES web page.
- Summarize this year's Public Involvement and Participation in the Annual Report.

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to:

- Implement an ongoing Illicit Discharge Detection and Elimination (IDDE) program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into our MS4.
- Periodically update the City's municipal storm sewer system map.
- Have an ordinance in place to effectively prohibit non-stormwater, illegal discharges, and dumping into the City's MS4, including locating priority areas likely to have illicit discharges.
- Implement a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns. Complete field screening for at least 40% of the MS4 no later than December 31, 2017, and on average 12% each year thereafter.
- Implement an ongoing program designed to detect, identify and address non-stormwater discharges, illicit connections, and spills. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal.
- Provide training to appropriate City employees on IDDE. Document training events, staff attendance and maintain records of activities conducted to meet Permit requirements. Conduct follow-up training as necessary to address changes in procedures, techniques, requirements or staffing.
- Track and document IDDE activities and summarize in the 2015 Annual Report to DOE.

3.2 Current Activities

The City of Tukwila has an ongoing IDDE program in place that includes these current activities:

- The City maintains a geographic (GIS) mapping program. This information is provided upon request to the public.
- The City has an ordinance and program in place that prohibits non-stormwater, illegal discharges, and dumping into the City's MS4, including locating priority areas likely to have illicit discharges. The ordinance also provides for escalating enforcement.
- The City has an active IDDE inspection program that includes both private and public stormwater facilities.
- The City has an advertised reporting phone number, (206) 433-1860, where illegal dumping and spills can be reported.
- The City provides information regarding the hazards associated with illegal discharges and improper waste disposal to the general public, businesses and public employees.
- The City has a Suds Safe Car Wash Program that makes car wash kits available to Tukwila citizens for fund raising events held within Tukwila City limits.

- The City has an active inspection program that targets businesses with potential pollution generating activities such as restaurants and automotive businesses.
- Appropriate training is provided to City employees on IDDE into the City's MS4. The City maintains records of the training events.
- The City's Maintenance Department provides ongoing video inspection of its stormwater conveyance system.
- Track and document IDDE activities and summarize in the Annual Report.

3.3 Planned Activities

The City of Tukwila will continue all current IDDE activities and will implement the following activities in 2015:

- Continue field screening methodology appropriate to the characteristics of the MS4 and water quality concerns.
- Provide and make available various brochures to help increase public awareness of the City's stormwater issues.
- Review the City's spill hotline number, (206) 433-1866, to determine if the process is functioning as expected.
- Provide training for new employee's hired in 2015.
- Track and document IDDE activities and summarize in the Annual Report.

4. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

4.1 Permit Requirements

The Permit (Section S5.C.4) requires the City to:

- Implement and enforce an ordinance or other mechanism that addresses stormwater runoff and pollutant generating activities to its MS4 from any new development, redevelopment, and construction site activities. This applies to both private and public development, including roads.
- Have in place a permitting process for residential and commercial site plan review, inspection, and enforcement capability necessary to implement the requirements of the Permit.
- Have provisions in place to verify adequate long-term operation and maintenance (O&M) of new stormwater treatment and flow control BMPs/facilities permitted and constructed. Establish maintenance standards that are as protective as those in Chapter 4 of Volume V of the 2012 *Stormwater Management Manual for Western Washington* by December 31, 2016.
- Make available and provide copies of the *Notice of Intent (NOI) for Construction or Industrial Activity* of proposed new development and redevelopment representatives.
- Ensure proper staff is trained to conduct inspection and enforcement as necessary and provide follow-up training as needed to address changes in procedures, techniques, or staffing. Record and maintain records of training provided and a list of staff that have been trained.

- Review and revise the City’s development codes, standards and specifications to incorporate and require Low Impact Development (LID) principles and LID best management practices (BMPs) as the preferred method for development by December 31, 2016.
- Participate in watershed-scale stormwater planning under condition S5.C.5.c of the Phase I Municipal Stormwater General Permit if required. At this time, King County has not selected Tukwila as a participant in the watershed-scale stormwater planning process.
- Track and document Controlling Runoff activities and summarize in the Annual Report.

4.2 Current Activities

The City has an active program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites that includes the following:

- The City implements the 2009 King County Surface Water Design Manual as direction to address stormwater runoff and water quality for both public and private projects, including roads.
- Make available “*Notice of Intent (NOI) for Construction or Industrial Activity*” to representatives of proposed new development and redevelopment.
- Staff receives ongoing training on erosion control and LID techniques.
- All construction sites are inspected prior to start, during, and post construction. This includes annual post-construction of all commercial and residential treatment and flow control BMPs/facilities whereby maintenance responsibility, standards and inspection procedures are addressed.
- Document and maintain records of all new development and redevelopment and construction site activities, including inspections and enforcement actions.
- Long-term operation and maintenance of stormwater control and water quality treatment is conducted.
- Post-construction of private stormwater systems are performed and documented.
- Track and document Controlling Runoff activities and summarize in the Annual Report.

4.3 Planned Activities

The City will continue all current activities and will implement the following activities for 2015:

- Begin process to review, revise and make effective development-related codes, rules, standards, or other enforceable documents to incorporate and require LID principles and LID BMPs.
- Continue LID training.
- Prepare to adopt maintenance standards equivalent to the 2012 *Stormwater Management Manual for Western Washington*.
- Review and improve, where applicable, the City’s program to Control Runoff from New Development, Redevelopment and Construction Sites.

- Track and document Controlling Runoff activities and summarize in the Annual Report.

5. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

5.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to:

- Implement an operations and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Implement maintenance standards that are as or more protective, of facility functions than those specified in *Chapter 4 of Volume V of the 2012 Stormwater Management Manual for Western Washington* by December 31, 2016.
- Conduct annual inspections of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities, and conduct necessary maintenance actions that will meet City adopted standards.
- Conduct spot checks, of City owned flow control and water quality facilities after major storm events, and repair if needed or perform any necessary maintenance.
- Inspect all City owned catch basins and inlets at least once no later than August 1, 2017 and every two years thereafter. Clean catch basins if needed to comply with maintenance standards.
- Maintain compliance with an established inspection program designed to inspect all sites, achieving at least 95% of inspections per requirements of the Permit.
- Implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from all lands owned or maintained by the City, including but not limited to, streets, parking lots, roads, highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.
- Conduct ongoing training for employees whose primary construction operations or maintenance job functions may impact stormwater. Document and maintain records of training provided and the staff trained.
- Provide a Stormwater Pollution Prevention Plan (SWPPP) for all City owned or operated heavy equipment maintenance or storage yards and material storage yards. A schedule for implementation of structural BMPs and periodic inspections shall be included in the SWPPP.
- Maintain ongoing records of inspections, maintenance, or repairs conducted to meet performance measures.
- Track and document O&M activities and summarize in the 2014 Annual Report.

5.2 Current Activities

The City of Tukwila's Operations & Maintenance program includes the following:

- Catch basins and conveyance system including flow and water quality facilities are inspected and cleaned on a circuit based program and as necessary annually.

- Video inspection is conducted to help investigate illegal connections, discharges, damaged and obstructed sections of pipe. Appropriate response and repairs are conducted.
- Staff maintains a list of potential problem areas that are monitored and maintained during and after major storm events. O&M training program and a SWPPP is in place at required locations.
- Track and document O&M activities and summarize in the Annual Report.

5.3 Planned Activities

The City has an active pollution prevention and operation and maintenance program conducted by the City's Surface Water Maintenance Division and will conduct the following activities in 2015:

- Continue ongoing inspection and necessary maintenance of all water quality and flow control facilities, including catch basins owned and operated by the City.
- Continue to monitor and maintain known problem areas after major storm events.
- Continue with the City's street sweeping program helping to reduce the amount of sediment and associated waste.
- Provide necessary training for City employees whose job functions may impact stormwater.
- Document and maintain record of these activities.
- Review the current SWPPP for compliance and update as necessary.
- Continue with BMPs to reduce stormwater impacts associated with runoff from all municipal owned properties and operations.
- Track and document O&M activities and summarize in the Annual Report.

6. COORDINATION

6.1 Permit Requirements

The Permit (Section S5.A.5) requires coordination between Departments within the City to eliminate barriers to compliance with the terms of this permit by:

- The SWMP shall include coordination mechanisms among departments within each jurisdiction to eliminate barriers to compliance with the terms of this permit.

6.2 Current Activities

Coordination activities include the following:

- Engineering has identified NPDES Permit coordination contacts within the City.
- Internally, engineering staff has a lead role in coordinating Permit requirements with public and private stormwater related activities among City departments. Most all departments are affected by the Permit requirements and key departments have significant contributions to improve and reduce stormwater runoff.
- Pre-application review meetings are scheduled at the time of a pre-application project submittal. These meetings are attended by all key City departments as well as the applicant.

- The City uses a formal process by distributing a routing slip to ascertain each department has the opportunity to assign appropriate staff for review of each proposed project.
- Development review meetings occur weekly, where permit requirements are identified. Review meetings are attended by the NPDES Coordinator, Development Engineers and other key staff
- Externally, City projects that impact interconnected MS4s are coordinated on an informal basis. Staff coordinates with WSDOT, King County, Kent, Renton, Burien and Sea Tac.
- Private property projects that will connect to a neighboring City's storm drainage facility are referred to that particular City for approval.
- SEPA is an additional mechanism used to coordinate with other jurisdictions.
- The City's stormwater map is made available to those jurisdictions with interconnected MS4s.
- All efforts are made by the City to play an active role in various NPDES regional coordination groups. An NPDES contact list which includes both Phase I and Phase II Permittees is maintained and updated when necessary.
- In addition, the Tukwila's Operations and Maintenance performs a lead role interacting internally and with neighboring jurisdictions with physically interconnected MS4s. A contact coordination list is maintained and updated as necessary.

6.3 Planned Activities

Coordination efforts include:

- The City will continue coordination efforts internally and with neighboring cities and jurisdictions.
- Issue an internal memorandum of mandated NPDES updates ensuring each department understands the Permit requirements.
- Provide a gap analysis to determine specific coordination needs.
- Summarize this year's Coordination efforts in the Annual Report.

7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

The Permit (Section S7) requirements apply if an applicable Total Maximum Daily Load (TMDL) is approved for stormwater discharges from MS4s owned or operated by the Permittee. Applicable TMDLs are TMDLs which have been approved by EPA on or before the issuance date of this Permit or prior to the date that Ecology issues coverage under this permit, whichever is later. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. The DOE determines the reduction of pollutant discharge needed to be compliant with water quality standards. A TMDL has not been established for the City of Tukwila at this time, consequently no action needed.

8. MONITORING AND ASSESSMENT

The Permit (Section S8) requires the City to:

- Notify DOE of its choice to independently conduct Status and Trends Monitoring and Effectiveness Studies, or participate by paying annually into the Regional Stormwater Monitoring Program (RSMP) that will be conducted by DOE.
- Pay into the RSMP to implement the Source Identification Information Repository (SIDR) element of the RSMP.
- Track and Document additional monitoring conducted and summarize in the 2014 Annual Report.

8.2 Current Activities

The City of Tukwila has chosen to pay into the RSMP and have DOE conduct the Status and Trends Monitoring and Effectiveness Studies. In addition the Permit requires the City to pay into the RSMP to implement the SIDR element.

8.3 Planned Activities

The City of Tukwila met its payment obligation for August 15, 2014 through August 15, 2015. Payments into the RSMP will be made by August 15 of each following year for his Permit term.

CONCLUSION

On August 1, 2013, the City of Tukwila's new 5-year term NPDES Phase II permit went into effect and was modified January 16, 2014. This Surface Water Management Program Plan has been prepared to demonstrate compliance with the requirements of this current NPDES Phase II Permit. This SWMP Plan will be a working document with updates annually until the permit expires on July 31, 2018. LID and monitoring requirements are the significant changes to the new Permit.

The City's Public Education and Outreach Program is an extension of the previous permit term and will continue to grow with the planned activities. The City of Tukwila will continue to reach out and encourage public involvement and participation in the City's SWMP Plan with new and existing notification process already in place.

The City's IDDE Program is in place, which includes a spill hotline, and will be reviewed periodically to ensure performance measures are met.

The City implements the 2009 Surface Water Manual for controlling runoff from new development, redevelopment, and construction sites. Also, the City will prepare to adopt LID measures which will be mandated by December 31, 2016.

The City of Tukwila's Operations & Maintenance is very active in all areas of permit compliance. It should be noted; new maintenance standards are available in DOE's 2012 *Stormwater Management Manual for Western Washington* and must be adopted by December 31, 2016.

Coordination efforts will continue with neighboring jurisdictions and be reviewed to determine where improvements are needed to remove jurisdictional barriers.

Total Maximum Daily Load requirements in Tukwila have not been determined by DOE to date. However, the City will prepare for this requirement if and when it comes due.

The City chose to participate in the RSMP collective fund and have DOE administer and conduct the Monitoring and Assessment for this Permit term.

Additional information on the City's NPDES program can be found online at <http://www.tukwilawa.gov/pubwks/npdes.html>.

The public is encouraged to participate in the development of the SWMP Plan. Please contact Greg Villanueva of the City of Tukwila's Public Works Department with questions, comments, or ideas at:

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